

CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

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- 1 1. A connector, comprising:
- 2 means for receiving a first end of a tubing assembly junction;
- 3 means for engaging a substantial portion of the first end of the tubing assembly
- 4 junction;
- 5 means for receiving a second end of a tubing assembly junction; and
- 6 means for securely coupling the tubing assembly junction wherein forces
- 7 applied along the longitudinal axis of the tubing assembly do not result in
- 8 disengagement of the tubing assembly at the junction.

- 1 2. The connector of claim 1, wherein the means for engaging comprises a
- 2 housing.

- 1 3. The connector of claim 1, wherein the means for receiving a first end
- 2 comprises a slot.

- 1 4. The connector of claim 1, wherein the means for receiving a second
- 2 end comprises an aperture.

- 1 5. The connector of claim 1, wherein the means for securely coupling
- 2 comprises a tapered inner surface of the housing.

1 6. The connector of claim 1, wherein the means for securely coupling
2 comprises a restrictor.

1 7. The connector of claim 2, wherein the housing forms an aperture.

1 8. The connector of claim 3, wherein the slot is substantially parallel with
2 the longitudinal axis of the connector.

1 9. The connector of claim 6, wherein the restrictor comprises a plate.

1 10. The connector of claim 6, wherein the restrictor comprises a tab.

1 11. The connector of claim 8, wherein the housing forms a slot having a
2 width that is smaller than the outer diameter of an exit tube of the tubing assembly.

1 12. The connector of claim 9, wherein the plate forms an inlet port having
2 a width that is smaller than the outer diameter of an inlet tube of the tubing assembly.

1 13. The connector of claim 9, wherein the plate forms an inlet port having
2 a width that is smaller than the outer diameter of a nipple of a coupler of the tubing
3 assembly.

1 14. The connector of claim 10, wherein the tab is biased into the aperture
2 of the housing.

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1 15. A method for securely coupling a tubing assembly, comprising:
 2 selecting an appropriately configured universal connector;
 3 inserting a first end of a tubing assembly junction within a housing of the
 4 universal connector; and
 5 axially rotating a second end of a tubing assembly junction until the tubing
 6 assembly junction is substantially aligned with the longitudinal axis of the connector.

1 16. The method of claim 15, wherein the step of inserting a first end of a
 2 tubing assembly junction comprises substantially enveloping the outer circumference
 3 of a first tube of the tubing assembly.

1 17. The method of claim 15, wherein the step of inserting a first end of a
 2 tubing assembly junction comprises engaging an exterior surface of a structure of the
 3 tubing assembly junction with an inner surface of the connector.

1 18. The method of claim 15, further comprising:
 2 biasing a structure of the housing of the connector to engage an outer surface
 3 of the tubing assembly junction.

1 19. The method of claim 18, wherein the structure comprises a restrictor.

- 1 20. A connector, comprising:
- 2 a housing having an inlet port, an outlet port, and a tapered inner surface,
- 3 wherein the housing is configured to closely surround and contact a first end of a
- 4 tubing junction; and
- 5 a restrictor fixedly attached to the housing, the restrictor configured to engage
- 6 a second end of the tubing junction.

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